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**Polyurethane and its use in plastics finishing**

**Abstract**

Sub  
A4

A polyurethane which has a number average molecular weight  $M_n$  of from 3,000 to 50,000 and an acid number of from 10 to 35 and is preparable by reacting

(a1) at least one polyesterpolyol having a number average molecular weight  $M_n$  of from 1,000 to 4,000, preferably from 1,200 to 3,000, an acid number of from 0 to 15, preferably from 0 to 10, and an OH number of from 35 to 150, preferably from 50 to 120, based on acyclic aliphatic and cycloaliphatic dicarboxylic acids,

(a2) a mixture of at least one diol and one triol,

(a3) at least one compound containing at least two isocyanate-reactive functional groups (a31) and at least one functional group (a32) capable of forming anions, and

(a4) a mixture of at least one acyclic aliphatic and at least one cycloaliphatic diisocyanate,

with the proviso that

- [illegible]

to give an isocyanato-containing prepolymer which is then chain extended with a polyfunctional amine or amino alcohol and, if desired, is neutralized; and the use of the polyurethane for preparing polyurethane dispersions and coating materials for the finishing of plastics.